

Safety data sheet

according to REACH Regulation (EC) No. 1907/2006 including amending Regulation (EU) 2020/878

YETI Dentalprodukte GmbH

Revised on: July 15, 2015 replaces: September 4, 2024 Revision No.: 1.3

Dip & Brush K2 CAD CAM Zirkon Coloring Liquid



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Dip & Brush K2 CAD CAM Zirkon Liquid 100ml.
Consumables

1.2. Product identifier: Description / item number Product form: Mixtures

Dip & Brush K2 CAD CAM Zirkon Liquid A1 397-5001
Dip & Brush K2 CAD CAM Zirkon Liquid A2 397-5002
Dip & Brush K2 CAD CAM Zirkon Liquid A3 397-5003
Dip & Brush K2 CAD CAM Zirkon Liquid A3.5 397-5004
Dip & Brush K2 CAD CAM Zirkon Liquid B2 397-5007
Dip & Brush K2 CAD CAM Zirkon Liquid C2 397-5011
Dip & Brush K2 CAD CAM Zirkon Liquid D2 397-5014
Dip & Brush K2 CAD CAM Zirkon Liquid BL1 397-5017
Dip & Brush K2 CAD CAM Zirkon Liquid GR3 397-5019

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture

Infiltration liquid for coloring white zirconium oxide discs

1.3. Details of the supplier of the safety data sheet

Company name:	YETI Dentalprodukte GmbH
Street:	Industriestraße 3
Place:	D-78234 Engen
Telephone:	+49 7733-9410-0
Fax:	+49 7733-9410-22
Department providing information:	sdb@yeti-dental.com

1.4. Emergency number: +49 7733-9410-0 (Mon-Thur 8:00 a.m. - 4:30 p.m., Fri 8:00 a.m. - 3:00 p.m.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity, category 1B H350
Chronic aquatic hazard, category 3 H412
For the full text of the H and EUH statements, see section 16

Harmful physicochemical, health and environmental effects
May cause cancer. Harmful to aquatic life with long lasting effects

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2.2. Label elements

Note on labelling in accordance with Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS08

CLP signal word: Danger

Contains: Cobalt(II) nitrate hexahydrate

Hazard statements (CLP)

H350-may cause cancer

H412 harmful to aquatic life with long lasting effects

P201 obtain special instructions before use

P273 avoid release to the environment

P280 wear protective gloves, protective clothing, eye protection, face protection

P308+P313 if exposed or concerned: get medical advice/attention

Product for professional users only

2.3 Other hazards

According to Regulation (EC) No. 1907/2006 (REACH), this product does not contain any PBT / vPvB substances assessed in accordance with REACH Annex XIII

The mixture does not contain any substances that are included in the list according to REACH Article 59 paragraph 1 due to endocrine disrupting properties or it has been classified according to the criteria of Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 of the Commission that it does not contain any substances with endocrine properties in a concentration of at least 0.1%

SECTION 3: Composition/information on ingredients

3.1. Substances not applicable

3.2. Mixtures

No. 1272/2008 [CLP]

Name Product	Identifier	%	Classification acc.Regulation (EC)
Erbium(III) nitrate pentahydrate	CAS No.10031-51-3 EC No.629-629-4	<2	Ox.Sol. 2, H272, Skin Irrit.2 H315 Eye Irrit.2 H319,STOT SE 3 H335
REACH No. Not available			

Cobalt(II) nitrate hexahydrate	CAS No.10141-05-6	<0.05	Carc 1B, H350i, Muta 2, H341
Substances REACH Candidate	EC No.233-402-1		Repr.1B, H360F, Resp.Sens 1 H334
Data list (Cobalt(II) dinitrate	EC Index No.027-009-00-2		Skin Sens1 H317 Aquatic Acute1 H400

REACH No. not available Aquatic Chronic1 H410 (M=10)

Specific concentration limits:

Name Product	Identifier	Specific concentration limits
Cobalt(II) nitrate hexahydrate	CAS No.10141-05-6, EG233-402-1 (0.01<C<100) EC Index 027-009-00-2	Carc 1B, H350i EC No. 233-402-1

REACH No. not available

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: In case of accident or if you feel unwell, seek medical attention

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After inhalation

Take the person to fresh air and ensure that they can breathe freely

After skin contact

Wash with soap and plenty of water. If skin irritation persists, seek medical attention.

After eye contact

Remove contact lenses. Rinse immediately with plenty of water. If symptoms occur, seek medical attention.

After ingestion

Do not induce vomiting. Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Seek medical attention if you feel unwell. Do not allow neutralizing agents to drink.

4.2. Most important symptoms and effects, both acute and delayed

If handled as directed, no health impairments are known or expected.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media / Suitable extinguishing media

Alcohol-resistant foam, dry extinguishing agent, carbon dioxide (CO₂), water spray jet.

Unsuitable extinguishing media Full water jet

5.2. Special hazards arising from the substance or mixture

Dangerous decomposition products in the event of fire: Possible release of toxic fumes

5.3. Advice for firefighters

Use self-contained breathing apparatus. Full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove unprotected persons to safety. Remove ignition sources

6.1.1 Personnel not trained for emergency situations

Emergency procedures: Ventilate contaminated areas

6.1.2 Emergency responders

Protective equipment: Do not attempt to work without protective equipment. For further information, see section 8. Exposure controls/Personal protective equipment.

6.2. Environmental precautions

Do not allow to enter drains/surface water/ground water. If it does, notify authorities

6.3. Methods and material for containment and cleaning up

Collect mechanically and place in suitable containers for disposal. Dispose of to an approved facility.

6.4. Reference to other sections

Observe protective measures (see section 8 "Exposure controls/Personal protective equipment"). For information on disposal, see chapter 13.

SECTION 7: Handling and storage

7.1. Protective measures for safe handling Information on safe handling / hygiene measures

Do not leave vessels/containers open. General hygiene measures. Do not eat, drink or smoke when using. Wash hands before breaks and at the end of work. The amount of product used for processing must be kept to a minimum. Floors, walls and other surfaces must be cleaned regularly. 7.2.

Conditions for safe storage, taking into account any incompatibilities Requirements for storage rooms and containers Keep locked in a well-ventilated place. Observe storage temperature: 2 – 28°C

Information on storage in one container Keep away from food, drinks and animal feed. Do not store together with oxidizing and self-igniting substances. Protect from frost and direct light/sunlight.

7.3. Specific end use(s)

No further information available

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SECTION 8: Exposure controls/personal protection

8.1. Parameters to be monitored

8.1.1 National occupational exposure limits and biological limit values

Citric acid (77-92-9)

Germany-Limitation of exposure at the workplace (TRGS 900)

AGW (OEL TWA)[1] 2mg/m³(the risk to damage tot he embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction. Exceedance factor of the peak limitation 2(l)

Note from the DFG Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Workplace of the DFG. (MAK Commission). Y-There is no need to fear a risk of damage to the fetus if the workplace exposure limit and the biological limit value (BGW) are observed. Legal reference TRGS 900

8.1.2 Recommended monitoring procedures

No further information available

8.1.4 DNEL and PNEC values

No further information available

8.1.5 Control band

No further information available

8.2. Limiting and monitoring exposure

8.2.1 Suitable engineering controls

Ensure adequate ventilation in the workplace.

8.2.2 Personal protective equipment

8.2.2.1 Eye/face protection

Tightly fitting safety goggles (EN 166).

8.2.2.2.Hand protection

Butyl chemical protection gloves, layer thickness at least 0.4 mm, breakthrough time (wearing time >480 minutes) standard EN ISO 374. Different requirements may arise depending on the application. Therefore, the recommendations of the protective glove supplier must also be taken into account.

Body protection

Wear suitable protective clothing when working. EN 14605

Respiratory protection

If ventilation is inadequate, wear a respiratory protective device. EN136/140/145

Limiting and monitoring environmental exposure

Avoid release into the environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State of matter:	liquid
Colour:	not determined
Odour:	not determined
Odour threshold	not determined
Melting point:	not applicable
Initial boiling point and boiling range:	not determined
Softening point:	not determined
Dropping point:	not determined
Flash point:	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not determined
Explosion hazards:	not determined
Density (at 20 °C):	not determined
Relative density	not determined
Relative vapor density at 20 °C	not determined
Water solubility:	not determined
Dyn. Viscosity: (at 20 °C)	not determined

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9.2. Other information

No further information available

9.2.1 Information on physical hazard classes

No further information available

9.2.2 Other safety parameters

No further information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored, used and transported as directed

10.2. Chemical stability

Chemically stable under normal conditions

10.3. Possibility of hazardous reactions

No hazardous reactions are known under normal conditions of use.

10.4. Conditions to avoid

None under the recommended storage and handling conditions (see section 7)

Protect from direct light / sunlight.

10.5. Incompatible materials

Strong oxidizing agents, reducing agents, alkalis.

10.6. Hazardous decomposition products

Under normal storage and use conditions, no hazardous decomposition products should be produced.

SECTION 11: Toxicological information

11.1. Information on the hazard classes in accordance with Regulation (EC) No. 1272/2008

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Corrosion/irritation of skin: Not classified

Serious eye damage: Not classified.

Respiratory sensitization: Not classified.

Germ cell mutagenicity: Not classified

Carcinogenicity: May cause cancer

Reproductive toxicity: Not classified.

Specific target organ toxicity (single exposure): Not classified.

Specific target organ toxicity (repeated exposure): Not classified.

Aspiration hazard: Not classified

Erbium(III) nitrate pentahydrate (10031-51-3)

Specific target organ toxicity with single exposure may cause respiratory irritation

Specific target organ toxicity with repeated exposure Not classified

Aspiration hazard Not classified

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties.

Health effects that endocrine disrupting properties may cause.

The mixture does not contain any substances that are included in the list according to REACH Article 59(1) due to endocrine disrupting properties or it has been determined according to the criteria of

Delegated Regulation (EU)

2017/2100 or Commission Regulation (EU) 2018/605 not to contain substances with endocrine disrupting properties at a concentration of 0.1% or higher.

11.2.2 Other information

No further information available

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SECTION 12: Ecological information

12.1. Toxicity

Ecology in general:

harmful to aquatic organisms
with long-term effects

Hazardous to the aquatic environment in the short term (acute):

Not classified.

Hazardous to the aquatic environment in the long term (chronic):

harmful to aquatic organisms
with long-term effects

Cobalt (III) nitrate hexahydrate (10141-05-6)

LC50 – fish [1]

66.8 mg/l

EC50 – crustaceans [1]

3.4 mg/l

12.2. Persistence and degradability

Not determined

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Not determined

12.5. Results of PBT and vPvB assessment

Z-CAD Deep Liquid

This substance / mixture does not meet the PBT criteria of the REACH Regulation, Annex XIII

This substance / mixture does not meet the vPvB criteria of the REACH Regulation, Annex XIII

12.6. Endocrine disrupting properties

The mixture does not contain any substances that are included in the list according to REACH Article 59(1) due to endocrine disrupting properties or it has been determined according to the criteria of the Delegated Regulation (EU)

2017/2100 or Commission Regulation (EU) 2018/605 that it does not contain any substances with endocrine disrupting properties in a concentration of at least 0.1%.

12.7. Other adverse effects

No further information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods:

Dispose of contents/container in accordance with the approved collector's sorting instructions.

SECTION 14: Transport information

According to ADR/IMDG/IATA/ADN/RID

ADR	IMDG	IATA	ADN	RID
14.1 UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No additional information available				

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14.6. Special precautions for user

Land transport	not applicable
Marine transport	not applicable
Air transport	not applicable
Inland waterways transport	not applicable
Rail transport	not applicable
14.7. Bulk sea transport according to IMO instruments	not applicable.

SECTION 15: Legislation

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 EU regulations

REACH Annex XVII (Restriction List)

Reference code Applicable to

28. Cobalt (II) nitrate hexahydrate

3(b) Z-CAD Surface liquid

3© Z-Card Surface liquid

30 Cobalt (II) nitrate hexahydrate

REACH Annex XIV (Authorization List)

Does not contain any substances listed in REACH Annex XIV (Authorization List).

REACH Candidate List (SVHC)

Does not contain any substances listed on the REACH Candidate List.

PIC Regulation (Prior Informed Consent)

Does not contain any substances listed on the PIC List (Regulation EU649/2012 on the export and import of dangerous chemicals).

POP Regulation (Persistent Organic Pollutants)

Does not contain any substances that are listed on the POP list (Regulation EU2019/1021 on persistent organic pollutants).

Ozone Regulation (1005/2009)

Does not contain any substances that are listed on the ozone depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer).

Regulation on explosive precursors (EU2019/1148)

Does not contain any substances that are listed on the list of explosive precursors (Regulation EU 2019/1148 on the marketing and use of explosive precursors).

Drug Precursor Regulation (EC 273/2004)

Does not contain any substances that are listed on the list of drug precursors (EC Regulation eG 273/2004 on drug precursors).

15.1.2 National regulations Germany

Employment restrictions: Observe restrictions in accordance with the Maternity Protection Act (MuSchG).

Observe restrictions in accordance with the Youth Employment Protection Act (JArbSchG).

Water hazard class (WGK): WGK3, highly hazardous to water (classification according to AwSV, Annex 1)

Chemicals Prohibition Ordinance: This product is subject to the ChemVerbotsV Annex 2 Entry 1. The following

requirements must be observed. A1) Permit requirement according to Section 6 Paragraph 1 Sentence 1

A2) Basic requirements for carrying out the delivery according to Section 8 Paragraphs 1, 3 and 4

A3) Identification and documentation according to Section 9 Paragraphs 1-3.

A4) Exclusion of the shipping route according to Section 10.

Major Accident Ordinance (12 BImSchV): Not subject to the Major Accident Ordinance (12 BImSchV)

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out

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SECTION 16: Other information

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
BKF Bioconcentration Factor
ATE Acute Toxicity Estimate
DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
IATA International Air Transport Association
IMDG International Maritime Dangerous Goods Regulations
RID International Carriage of Dangerous Goods by Rail
DOT Ministry of Transport
TDG Transport of Dangerous Goods
REACH Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals,
GHS Globally Harmonized System of Classification and Labeling of Chemicals
IARC International Agency for Research on Cancer
vPvB very persistent and very bioaccumulative
PBT Persistent, Bioaccumulative and Toxic Substance
PNEC Predicted No Effect Concentration
IBC- Internal Safety Regulation for the Transport of Dangerous Chemicals and harmful to health
Code Liquids in bulk in maritime transport
CLP Regulation on classification, labelling and packaging, Regulation (EC) No. 1272/2008
MARPOL MARPOL73/78: The international convention for the prevention of marine pollution from ships
ADG Australian transport of dangerous goods
BLV Biological limit value
BOD Biochemical oxygen demand (BOD)
COD Chemical oxygen demand (COD)
EC No. European Community Number
EC50 mean effective concentration
EN European Standard
LC50 lethal concentration for 50% of a test population
LD50 lethal dose for 50% of a test population (median lethal dose)
LOAEL lowest observed adverse effect dose
NOAEC no observed adverse effect concentration
NOAEL no observed adverse effect dose
NOEC highest tested no observed adverse effect concentration
OECD Organisation for Economic Co-operation and Development
OEL occupational exposure limit
SDS safety data sheet
STP sewage treatment plant
ThSB theoretical oxygen demand (ThSB)
TLM median tolerance limit
VOC volatile organic compounds
CAS Chemical Abstract Service number
N.O.S. Not Elsewhere Specified
ED endocrine disrupting properties

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Full text of H and EUH statements
Aquatic Acute 1 Acute aquatic hazard, category 1
Aquatic Chronic 1 Chronic aquatic hazard, category 1
Carc 1B Carcinogenicity (inhalation) category 1B
Eye Irrit.2 Serious eye damage/eye irritation, category 2
H272 may intensify fire, oxidizer
H315 causes skin irritation
H317 may cause an allergic skin reaction
H319 causes serious eye irritation
H334 may cause allergy, asthma symptoms/breathing difficulties if inhaled
H335 may cause respiratory irritation
H341 suspected of causing genetic defects
H350 may cause cancer
H350i may cause cancer if inhaled
H360F may damage fertility
H400 very toxic to aquatic life
H410 very toxic to aquatic life with long lasting effects
H412 harmful to Aquatic organisms with long-term effects
Muta 2 Germ cell mutagenicity, Category 2
Ox.Sol.2 Oxidizing solids, Category 2
Repr.1B Reproductive toxicity, Category 1B
Resp.Sens.1 Respiratory sensitization, Category 1
Skin Irrit.2 Skin corrosion/irritation, Category 2
Skin Sens.1 Skin sensitization, Category 1
STOT SE 3 Specific target organ toxicity (single exposure), Category 3, Respiratory tract irritation

Classification and procedures used to establish the classification of mixtures according to Regulation (EC) 1272/2008 [CLP]

Carc. 1B	H350	Calculation methods
Aquatic Chronic 3	H412	Calculation methods

Further information

The information in positions 4 to 8 and 10 to 12 is not related in part to the use and correct application of the product (see instructions for use/technical information), but to the release of large quantities in the event of accidents and irregularities.

The information describes only the safety requirements of the product(s) and is based on our current knowledge.

The delivery specifications can be found in the respective product information sheets, if available. They do not represent a guarantee of the properties of the described product(s) in the sense of the statutory warranty regulations.

This information is based on our current knowledge and is intended to describe the product only with regard to health, safety and environmental conditions. They must therefore not be interpreted as a guarantee for specific properties of the product.